

Claims:

1. A one-touch type foldable tent, comprising:

a center connection assembly 100A that includes:

a shaft part 111 that has a plurality of compression pulling rope

5 holes 112 at a center portion and has a plurality of engaging protrusions 113 at a lower side of the shaft part 111 in a radial direction;

a compression support part 110 that is formed of an upper plate part 115 expanded from an upper side of the shaft part 111 in a horizontal direction;

10 a vertical through hole 122 that is configured to receive the shaft part 111 of the compression support part 110 therein;

a plurality of pulling rope holes 124 that are vertically formed at a surrounding portion of the vertical through hole 122;

a vertical pipe part 121 that has a plurality of pulling rope fixing
15 rings 127 at a lower side of the outer surface of the vertical pipe part 121;

a plurality of rotation guide grooves 129 that are expanded from an upper side of the vertical pipe part 121 in a horizontal direction and are formed in a radial direction;

a connection support part 120 that is formed of a pole support
20 part 128 having a hinge shaft support protrusion 125 formed at each rotation guide groove; and

an elastic compression pulling rope 140 that is inserted into the

compression pulling rope hole 112 and is tied using a finishing plate 114 of the lower side of the center connection assembly 100A;

a plurality of frame poles 200, wherein each frame pole 200 includes:

a pole member 220 that is formed of upper and lower joint parts 240 and 230, and a molding part 210 having a pulling rope engaging groove 211 formed at an end of the pole member and a hinge shaft part 212 formed at a portion distanced from the pulling rope engaging groove by a certain distance, wherein the hinge shaft part 212 of the inner end part is inserted, using a pin P, into the hinge shaft support protrusion 125 formed at a rotation guide groove 129 of the pole support part 128; and

a pole pulling rope 130 that is hung onto the pulling rope engaging groove 211 and is inserted through the pulling rope holes 124 of the vertical pipe part 121 and is hung onto the pulling rope fixing ring 127 repeatedly;

a tent cloth 300 that is installed in such a manner that a ring 310 is engaged to an intermediate portion of each frame pole 200.

2. A one-touch type foldable tent, comprising:

a center connection assembly 100B that includes:

a shaft part 111 that has a compression pulling rope hole 112 at a center portion and has a plurality of engaging protrusions 113 at a lower side of the shaft part 111 in a radial direction;

a compression support part 110 that is formed of an upper plate

part 115 expanded from an upper side of the shaft part 111 in a horizontal direction;

a vertical pipe part 121 that has a vertical through hole 122 for receiving the shaft part 111 of the compression support part 110;

5 a plurality of rotation guide grooves 129 that are expanded from an upper side of the vertical pipe part 121 in a horizontal direction and are formed in a radial direction;

a connection support part 120 that is formed of a hinge shaft support protrusion 125 formed at each rotation guide groove; and

10 an elastic compression pulling rope 140 that is inserted into the compression pulling rope hole 112 and is tied using a finishing plate 114 of a lower side of the center connection assembly 100B;

a plurality of poles 200, wherein each pole 200 includes:

a pole member 220 that includes upper and lower joint parts
15 240 and 230 and is foldable;

a spring insertion part 213 that is inserted into an end of the pole member 220; and

a molding part 210 that is inserted into an end of the pole member 220 and has a spring insertion part 213 and a hinge shaft part 212 at
20 an intermediate portion;

a plurality of opening springs 214 wherein an outer end of each spring 214 is inserted into a spring insertion part 213 of the molding part 210 of each

pole 200, and an inner end part of the spring 214 closely contacts with a lower surface of the connection support part 120, and a ring part 214a of the intermediate part is inserted into the hinge shaft support protrusion 125 using a pin P together with the hinge shaft part 212; and

5 a tent cloth 300 that is installed in such a manner that rings 310 are engaged to the intermediate portions of the frame poles 200.

3. The tent of either claims 1 or 2, wherein said vertical through hole 122 of the connection support part 120 includes a rotation prevention vertical groove
10 123 so that an engaging protrusion 113 formed at an end portion of the shaft part 111 of the compression support part 110 passes through the vertical through hole 122.

4. A one-touch type foldable tent, comprising:

15 a support assembly 160 that includes:

 a pole hinge support 165 formed in such a manner that a pair of the pole hinge support 165 are provided in all directions;

 a support plate part 161 that has an engaging hole 161a vertically formed at the center of each pole hinge support 165; and

20 a pipe part 162 that is extended in a lower direction of the support plate part 161;

 a compression plate 150 that is positioned at an upper side of the

support plate part 161 and includes a mounting member 152 that is engaged at an engaging hole 151 of the center using a shaft pin 153 wherein an engaging protrusion 152a of the mounting member 152 is caught by an engaging hole 161a of the support assembly 160, and a widening elastic member 154 adapted
5 to widen the mounting member 152;

a center connection assembly 100C that includes:

a lifting and lowering member 170 including:

a lifting and lowering circular plate 174 that is connected using a center screw rod 171 connected at a center portion of the compression plate
10 150 and is elastically supported by a mounting spring 172 in the pipe part 162 of the support assembly 160; and

a mounting releasing member 173 that is guided by an extension part 173c inserted through a through hole 174a of the lifting and lowering circular plate 174 and is upwardly and downwardly movable;

15 a plurality of poles 200, wherein each pole 200 includes:

a pole member 220 that includes upper and lower joint parts 240 and 230 and is foldable; and

a molding part 210 that is inserted into an end portion of the pole member 220 and has a spring insertion part 213 and has a hinge shaft part
20 212 formed at an intermediate portion;

an opening spring 214 of which one outer end is inserted into a spring insertion part 213 provided at the molding part 210 of the poles, and one inner

end is closely contacted with a lower surfaced of the connection support part 160, wherein a ring part 214a of an intermediate portion is inserted into a hinge support 165 using a pin P together with the hinge shaft part 212; and

a tent cloth 300 that is installed in such a manner that a ring 310 is
5 engaged at an intermediate of each frame pole 200.

5. The tent of claim 4, wherein said compression plate 150 includes a support rod part 155 extended from a center lower surface wherein said support rod part 155 is inserted into a center portion of the support assembly 160, and
10 said support rod part 155 includes a vertical groove 155a formed for the mounting member 152.

6. The tent of claim 4, wherein said lifting and lowering member 170 includes a plurality of widening elastic members 154 inserted from a lower
15 surface of the lifting and lowering circular plate 174, and a washer 176 provided for fixing the widening elastic member and connecting the assistant connection wire material 175.

7. The tent as in claims 1, 2, or 4, wherein said upper side joint part 240 of
20 the poles 200 which is configured in a structure formed of a joint support part 241 and a joint rotation part 242 at both ends of the opposite pole member and is foldable using a hinge pin P is capable of generating a force allowing the

poles to be unfolded by disposing a joint spring 243.

8. The tent as in claims 1, 2, or 4, wherein said pole 200 which is foldable with a lower side joint part 230 includes:

5 a pole rotation part 232 that is inserted at a lower side of the pole member 220 and has a hinge protrusion 233b for thereby forming a longitudinal hole 232b at one side of an outer surface;

a pole support part 231 that is inserted into an upper side of another pole member 220 and has a semicircular cylinder part 231a for thereby
10 surrounding a part of the pole rotation part 232;

a hinge pin P that passes through the semicircular cylinder part 231a and is inserted into the longitudinal hole 232b; and

a plate spring 233 by which one end 233a is fixedly inserted into the pole support part 231, and the other end 233b is configured to push the pole
15 rotation part 232 in the semicircular cylinder part 231a.

9. The tent as in claims 1, 2, or 4, wherein said upper and lower joint parts 240 and 230 each include a protection part 250 that surrounds the surrounding portions of the upper and lower joint parts 240 and 230 and has a connection
20 hole 251 so that both ends are fixed by a riveting method together with a hinge pin P.

10. The tent of claim 9, wherein said protection part 250 is longitudinally extended, and is wound at an intermediate portion of each pole by providing a band part 252 at an end portion of the protection part 250.

5 11. The tent of claim 9, wherein said protection part 250 includes a binding rope 253 of which an intermediate portion is fixed at one side surface for thereby binding a support rope 320 of the tent cloth.

12. The tent as in claims 1, 2, or 4, wherein said pole 200 includes an
10 insertion member 234 at a lower end, so that the insertion member 234 is inserted into a support member 235 connected using a support band 236 at a corner bottom portion of the tent cloth 300, and said insertion member 234 has a rectangular engaging protrusion 234a, and said support member 235 having a nail hole 235a for nailing a nail 237 at an outer side and a rectangular engaging
15 hole 235b for inserting the insertion member 234 and a band hole 235c for inserting and connecting the support band 236 and an inwardly bent engaging piece 235d formed at a lower side of the rectangular engaging hole 235b.